

HAND RECEIPT

COVERING CONTENTS OF COMPONENTS OF  
END ITEM (COEI), BASIC ISSUE ITEMS (BII),  
AND ADDITIONAL AUTHORIZATION LIST (AAL)

**FOR**

**TEST SET, POSITION AND AZIMUTH  
DETERMINING SYSTEM**

**AN/USM-427**

**NSN 6675-01-081-9198**

This manual supersedes TM 5-6675-238-14-HR, 17 May 1983,

Approved for public release. Distribution is unlimited.

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HEADQUARTERS, DEPARTMENT OF THE ARMY  
**20 JANUARY 1988**



HAND RECEIPT

TM 5-6675-238-14-HR

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C., 20 January 1988

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COVERING COMPONENTS OF COMPONENTS OFG END ITEM (COEI),  
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FOR

TEST SET, POSITION AND AZIMUTH DETERMINING SYSTEM

AN/USM-427

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**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

You can help improve this manual. If you find any mistake or if you know of away to improve the procedures, please let us know. Mail your letter, DA Form 2028(Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, U.S. Army Troop Support Command, ATTN: AMSTR-MCTS, 4300 Goodfellow Boulevard, St.Louis, MO 63120-1798. A reply will be furnished directly to you.

TABLE OF CONTENTS

|                                | Page |
|--------------------------------|------|
| Section I. Introduction .....  | 1    |
| Section II. Hand Receipt ..... | 3    |



HAND RECEIPT FOR CONTENTS OF  
 COMPONENTS OF END ITEM (COEI), BASIC ISSUE ITEMS (BII), AND  
 ADDITIONAL AUTHORIZATION LIST (AAL) ITEMS FOR  
 TEST SET, POSITION AND AZIMUTH DETERMINING SYSTEM  
 AN/USM-427  
 NSN 6675-01-081-9198

Section I. INTRODUCTION

1. SCOPE. This publication provides overprinted DA Form 2062 (Hand Receipt) which lists the contents of Components of End Item (COEI), Basic Issue Items (BII), and Additional Authorization List (AAL) items related to the Position and Azimuth Determining System Test Set, AN/USM-427.

2. GENERAL.

Section II is the overprinted DA Form 2062 which lists the content of COEI, BII, and AAL extracted from TM 5-6675-238-14. The listings consist of exactly the same items and are in the same sequence as those listings in TM 5-6675-238-14.

b. The overprinted DA Form 2062 will eliminate manual preparation of the form and will assist organizations in inventorying and accounting for property as required by AR 710-2.

c. Local reproduction of the overprinted DA Form 2062 is authorized. However, organizations shall comply with local policies on the reproduction of DA Form 2062 by office copying equipment, field printing plant, or duplicating plant facilities.

d. Additional copies of this publication may be requisitioned from: U.S. Army Adjutant General Publications Center, 2800 Eastern Boulevard, Baltimore, MD 21220-2896. See DA Pamphlet 310-10-2 for proper requisitioning procedure.

3. EXPLANATION OF BLOCKS AND COLUMNS (DA Form 2062). Refer to DA PAM 710-2-1. Additional information required to complete DA Form 2062 is listed below:

a. Hand receipts shall identify the accounting requirement status of all line item entries of column c. One of the following Accounting Requirement Code (ARC) will apply:

(N) for Nonexpendable: Items not consumed in use, retaining their identity during use, and requiring that accountability be maintained throughout the life of the item.

(D) for Durable: Nonconsumable components of sets, kits, outfits, and assemblages; all tools in FSC's 5110, 5120, 5130, 5133, 5136, 5140, 5180, 5210, 5220, and 5280; and any other nonconsumable with a price in excess of \$50.00 not already "N."

(X) for Expendable: Items regardless of type classification or price and which are consumed in use. Includes all class 9 repair parts, Items not consumed in use which cost \$50.00 or less and not already "N" or "D."

b. Authorization documents are as follows:

(1) Components of End Item (COEI) are authorized by the applicable Repair Parts and Special Tools List (RPSTL).

(2) Basic Issue Items (BII) are authorized by the applicable operator's manual.

(3) Additional Authorization List (AAL) items are authorized by the appropriate MTOE, TDA, CTA, or JTA authorization documents.

Section II. HAND RECEIPT

| HAND RECEIPT/ANNEX NUMBER<br><i>For use of this form, see DA PAM 710-2-1.<br/>The proponent agency is ODCSLOG.</i> |  | FROM             | TO | PUBLICATION NUMBER<br>TM 5-6675-238-14 |    | PUBLICATION DATE |          |   |   |   |   | HAND RECEIPT NUMBER |
|--|--|------------------|----|--|----|------------------|----------|---|---|---|---|---------------------|
| END ITEM STOCK NUMBER  | END ITEM DESCRIPTION                       | ITEM DESCRIPTION | *  | SEC                                    | UI | QTY AUTH         | A        | B | C | D | E | F                   |
| STOCK NUMBER   |  |                  |    |  |    |                  | QUANTITY |   |   |   |   |                     |
| 6675-01-081-9198   | TEST SET, POSITION AND AZIMUTH DETERMINING |                  | N  |  |    |                  |          |   |   |   |   |                     |
|  | SYSTEM, AN/USM-427                         |                  |    |  |    |                  |          |   |   |   |   |                     |
|  | COMPONENTS OF END ITEM (COEI)              |                  |    |  |    |                  |          |   |   |   |   |                     |
|  | SIGNAL PROCESSOR UNIT TS-3617/USM-427      |                  | N  |  |    | 1                |          |   |   |   |   |                     |
|  | (06481) (877450-1)                         |                  |    |  |    |                  |          |   |   |   |   |                     |
|  | SIGNAL PROCESSOR UNIT CASE CY-7563/USM-427 |                  | D  |  |    | 1                |          |   |   |   |   |                     |
|  | (06481) (877427-1)                         |                  |    |  |    |                  |          |   |   |   |   |                     |
|  | PUNCHED TAPE READER RP-239/USM-427         |                  | N  |  |    | 1                |          |   |   |   |   |                     |
|  | (06481) (877406-1)                         |                  |    |  |    |                  |          |   |   |   |   |                     |
|  | PUNCHED TAPE READER CASE CY-7562/USM-427   |                  | D  |  |    | 1                |          |   |   |   |   |                     |
|  | (06481) (877407-1)                         |                  |    |  |    |                  |          |   |   |   |   |                     |
|  | BUFFER UNIT CY-3404/USM-427 (06481)        |                  | N  |  |    | 1                |          |   |   |   |   |                     |
|  | (877440-1)                                 |                  |    |  |    |                  |          |   |   |   |   |                     |
|  | TEST SET ACCESSORY CASE CY-7609/USM-427    |                  | D  |  |    | 1                |          |   |   |   |   |                     |
|  | (06481) (877428-1)                         |                  |    |  |    |                  |          |   |   |   |   |                     |

\* WHEN USED AS A:

HAND RECEIPT, enter Hand Receipt Annex Number

HAND RECEIPT FOR QUARTERS FURNITURE, enter Condition Codes

HAND RECEIPT ANNEX/COMPONENTS RECEIPT, enter Accounting Requirements Code (ARC).

| STOCK NUMBER<br>a. | ITEM DESCRIPTION<br>b.  | * | SEC<br>d. | U:<br>e. | QTY<br>AUTH<br>f. | QUANTITY |   |   |   |   |   |  |  |
|--------------------|---|---|-----------|----------|-------------------|----------|---|---|---|---|---|--|--|
|                    |   |   |           |          |                   | A        | B | C | D | E | F |  |  |
|                    | COEI - Continued  |   |           |          |                   |          |   |   |   |   |   |  |  |
|                    | CABLE ASSEMBLY, POWER, 96-INCH, W201<br>(06481) (875753-1)            | D |           |          | 1                 |          |   |   |   |   |   |  |  |
|                    | CABLE ASSEMBLY, SPECIAL PURPOSE, 60-INCH, W203<br>(06481) (875753-2)  | D |           |          | 1                 |          |   |   |   |   |   |  |  |
|                    | CABLE ASSEMBLY, SPECIAL PURPOSE, 72-INCH, W204<br>(06481) (875753-3)  | D |           |          | 1                 |          |   |   |   |   |   |  |  |
|                    | CABLE ASSEMBLY, SPECIAL PURPOSE, 120-INCH, W205<br>(06481) (875753-4) | D |           |          | 1                 |          |   |   |   |   |   |  |  |
|                    | CABLE ASSEMBLY, SPECIAL PURPOSE, 180-INCH, W212<br>(06481) (875753-9) | D |           |          | 1                 |          |   |   |   |   |   |  |  |
|                    | CABLE ASSEMBLY, SPECIAL PURPOSE, 72-INCH, W209<br>(06481) (875753-6)  | D |           |          | 1                 |          |   |   |   |   |   |  |  |
|                    | CABLE ASSEMBLY, SPECIAL PURPOSE, 14-INCH, W210<br>(06481) (875753-7)  | D |           |          | 1                 |          |   |   |   |   |   |  |  |
|                    | CABLE ASSEMBLY, SPECIAL PURPOSE, 126-INCH, W211<br>(06481) (875753-8) | D |           |          | 1                 |          |   |   |   |   |   |  |  |
|                    | CARD EXTRACTOR (06481) (877490-1)                                     | D |           |          | 1                 |          |   |   |   |   |   |  |  |
|                    | CARD EXTRACTOR (06481) (877435-1)                                     | D |           |          | 1                 |          |   |   |   |   |   |  |  |
|                    | SELF-TEST TAPE (06481) (877417-1)                                     | D |           |          | 1                 |          |   |   |   |   |   |  |  |
|                    | TAKE-UP REEL (06481) (951332-1)                                       | D |           |          | 1                 |          |   |   |   |   |   |  |  |



| STOCK NUMBER<br>a. | ITEM DESCRIPTION<br>b.                       | * | SEC<br>d. | UT<br>c. | QTY<br>AUTH<br>f. | QUANTITY |   |   |   |   |   |  |  |
|--------------------|--|---|-----------|----------|-------------------|----------|---|---|---|---|---|--|--|
|                    |  |   |           |          |                   | A        | B | C | D | E | F |  |  |
|                    | COEI - Continued                             |   |           |          |                   |          |   |   |   |   |   |  |  |
|                    | DIAGNOSTIC TAPE (06481) (877418-3)           | D |           |          | 1                 |          |   |   |   |   |   |  |  |
|                    | OPERATIONAL TAPE (06481) (877419-3)          | D |           |          | 1                 |          |   |   |   |   |   |  |  |
|                    | CARD EXTENDER, TAPE READER (97525) (E116-01) | D |           |          | 1                 |          |   |   |   |   |   |  |  |
|                    |  |   |           |          |                   |          |   |   |   |   |   |  |  |
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|                    |  |   |           |          |                   |          |   |   |   |   |   |  |  |
|                    | BASIC ISSUE ITEMS (BII)                      |   |           |          |                   |          |   |   |   |   |   |  |  |
|                    | TM 5-6675-238-14                             |   |           |          | 1                 |          |   |   |   |   |   |  |  |
|                    | SHORTING PLUG (06481) (875738-1)             | X |           |          | 1                 |          |   |   |   |   |   |  |  |
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| HAND RECEIPT/ANNEX NUMBER<br><i>For use of this form, see DA PAM 710-2-1.<br/>The proponent agency is ODCSLOG.</i> |                           | FROM:                               | TO:                                    | HAND RECEIPT NUMBER |                 |                       |                |   |   |   |   |   |
|--|---------------------------|-------------------------------------|--|---------------------|-----------------|-----------------------|----------------|---|---|---|---|---|
| END ITEM STOCK NUMBER  |                           | END ITEM DESCRIPTION                | PUBLICATION NUMBER<br>TM 5-6675-238-14 | PUBLICATION DATE    | QUANTITY        |                       |                |   |   |   |   |   |
| FOR ANNEX/CR ONLY  | STOCK NUMBER<br><i>a.</i> | ITEM DESCRIPTION<br><i>b.</i>       | *<br><i>c.</i>                         | SEC<br><i>d.</i>    | UI<br><i>e.</i> | QTY AUTH<br><i>f.</i> | g.<br>QUANTITY |   |   |   |   |   |
|  |                           |                                     |  |                     |                 |                       | A              | B | C | D | E | F |
|  |                           | ADDITIONAL AUTHORIZATION LIST (AAL) |  |                     |                 |                       |                |   |   |   |   |   |
|  |                           | FUSE (81349) (F028125V3A)           | X                                      |                     |                 | 1                     |                |   |   |   |   |   |
|  |                           | FUSE (81349) (F02A25V3/4A)          | X                                      |                     |                 | 1                     |                |   |   |   |   |   |
|  |                           | FUSE (81349) (F02A2505A)            | X                                      |                     |                 | 1                     |                |   |   |   |   |   |
|  |                           | FUSE (81349) (F02A250V1/8A)         | X                                      |                     |                 | 1                     |                |   |   |   |   |   |
|  |                           | FUSE (81349) (F02A250V11/2A)        | X                                      |                     |                 | 1                     |                |   |   |   |   |   |
|  |                           |                                     |  |                     |                 |                       |                |   |   |   |   |   |
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 HAND RECEIPT ANNEX/COMPONENTS RECEIPT, enter Accounting Requirements Code (ARC).

**By Order of the Secretary of the Army:**

**CARL E. VUONO**  
*General, United States Army*  
*Chief of Staff*

**Official:**

**R. L. DILWORTH**  
*Brigadier General, United States Army*  
*The Adjutant General*

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To be distributed in accordance with DA Form 12-25A, Unit Maintenance requirements for Test Set, Position & Azimuth Determining System (PADS) (AN/USM-427).





THEN... JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT. FOLD IT AND DROP IT IN THE MAIL!

SOMETHING WRONG WITH THIS PUBLICATION?

FROM (PRINT YOUR UNIT'S COMPLETE ADDRESS)  
**PFC JOHN DOE**  
**COA, 3d ENGINEER BN**  
**FT. LEONARDWOOD, MO 63108**  
 DATE SENT

PUBLICATION NUMBER  
 TM 5-6675-238-14-HR

PUBLICATION DATE  
 20 Jan 88

PUBLICATION TITLE  
 Test Set, Position and Azimuth  
 Determining System

BE EXACT PIN-POINT WHERE IT IS

| PAGE NO | PARA-GRAPH | FIGURE NO | TABLE NO |
|---------|------------|-----------|----------|
| 6       | 2-1<br>a   |           |          |
| B1      |            | 4-3       |          |
| 125     | line 20    |           |          |

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

In line 6 of paragraph 2-1a the manual states the engine has 6 cylinders. The engine on my set only has 4 cylinders. Change the manual to show 4 cylinders.

Callout 16 on figure 4-3 is pointing at a bolt. In key to figure 4-3, item 16 is called a shim - Please correct one or the other.

I ordered a gasket, item 19 on figure B-16 by NSN 2910-00-762-3001. I got a gasket but it doesn't fit. Supply says I got what I ordered, so the NSN is wrong. Please give me a good NSN

PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER

**JOHN DOE, PFC (268) 317-7111**

SIGN HERE

*John DOE*  
**JOHN DOE**

DA FORM 2028-2  
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IN THIS SPACE TELL WHAT IS WRONG  
AND WHAT SHOULD BE DONE ABOUT IT:

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TEAR ALONG PERFORATED LINE





# The Metric System and Equivalents

## Linear Measure

1 centimeter = 10 millimeters = .39 inch  
 1 decimeter = 10 centimeters = 3.94 inches  
 1 meter = 10 decimeters = 39.37 inches  
 1 dekameter = 10 meters = 32.8 feet  
 1 hectometer = 10 dekameters = 328.08 feet  
 1 kilometer = 10 hectometers = 3,280.8 feet

## Weights

1 centigram = 10 milligrams = .15 grain  
 1 decigram = 10 centigrams = 1.54 grains  
 1 gram = 10 decigrams = .035 ounce  
 1 dekagram = 10 grams = .35 ounce  
 1 hectogram = 10 dekagrams = 3.52 ounces  
 1 kilogram = 10 hectograms = 2.2 pounds  
 1 quintal = 100 kilograms = 220.46 pounds  
 1 metric ton = 10 quintals = 1.1 short tons

## Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce  
 1 deciliter = 10 centiliters = 3.38 fl. ounces  
 1 liter = 10 deciliters = 33.81 fl. ounces  
 1 dekaliter = 10 liters = 2.64 gallons  
 1 hectoliter = 10 dekaliters = 26.42 gallons  
 1 kiloliter = 10 hectoliters = 264.18 gallons

## Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch  
 1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches  
 1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet  
 1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet  
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres  
 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

## Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch  
 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches  
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

## Approximate Conversion Factors

| To change     | To                 | Multiply by | To change          | To            | Multiply by |
|---------------|--------------------|-------------|--------------------|---------------|-------------|
| inches        | centimeters        | 2.540       | ounce-inches       | newton-meters | .007062     |
| feet          | meters             | .305        | centimeters        | inches        | .394        |
| yards         | meters             | .914        | meters             | feet          | 3.280       |
| miles         | kilometers         | 1.609       | meters             | yards         | 1.094       |
| square inches | square centimeters | 6.451       | kilometers         | miles         | .621        |
| square feet   | square meters      | .093        | square centimeters | square inches | .155        |
| square yards  | square meters      | .836        | square meters      | square feet   | 10.764      |
| square miles  | square kilometers  | 2.590       | square meters      | square yards  | 1.196       |
| acres         | square hectometers | .405        | square kilometers  | square miles  | .386        |
| cubic feet    | cubic meters       | .028        | square hectometers | acres         | 2.471       |
| cubic yards   | cubic meters       | .765        | cubic meters       | cubic feet    | 35.315      |
| fluid ounces  | milliliters        | 29.573      | cubic meters       | cubic yards   | 1.308       |
| pints         | liters             | .473        | milliliters        | fluid ounces  | .034        |
| quarts        | liters             | .946        | liters             | pints         | 2.113       |
| gallons       | liters             | 3.785       | liters             | quarts        | 1.057       |
| ounces        | grams              | 28.349      | liters             | gallons       | .264        |
| pounds        | kilograms          | .454        | grams              | ounces        | .035        |
| short tons    | metric tons        | .907        | kilograms          | pounds        | 2.205       |
| pound-feet    | newton-meters      | 1.356       | metric tons        | short tons    | 1.102       |
| pound-inches  | newton-meters      | .11296      |                    |               |             |

## Temperature (Exact)

|    |             |                 |             |    |
|----|-------------|-----------------|-------------|----|
| °F | Fahrenheit  | 5/9 (after      | Celsius     | °C |
|    | temperature | subtracting 32) | temperature |    |







HAND RECEIPT

TM 5-6675-238-14-HR

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C., 20 January 1988

HAND RECEIPT  
COVERING COMPONENTS OF COMPONENTS OFG END ITEM (COEI),  
BASIC ISSUE ITEMS (BII), AND ADDITIONAL AUTHORIZATION LIST (AAL)

FOR  
TEST SET, POSITION AND AZIMUTH DETERMINING SYSTEM

AN/USM-427  
NSN 6675-01-081-9198

Approved for public release. Distribution is unlimited.

**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

You can help improve this manual. If you find any mistake or if you know of away to improve the procedures, please let us know. Mail your letter, DA Form 2028(Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, U.S. Army Troop Support Command, ATTN: AMSTR-MCTS, 4300 Goodfellow Boulevard, St.Louis, MO 63120-1798. A reply will be furnished directly to you.

TABLE OF CONTENTS

|                                | Page |
|--------------------------------|------|
| Section I. Introduction .....  | 1    |
| Section II. Hand Receipt ..... | 3    |



HAND RECEIPT FOR CONTENTS OF  
COMPONENTS OF END ITEM (COEI), BASIC ISSUE ITEMS (BII), AND  
ADDITIONAL AUTHORIZATION LIST (AAL) ITEM5 FOR  
TEST SET, POSITION AND AZIMUTH DETERMINING SYSTEM  
AN/USM-427  
NSN 6675-01-081-9198

Section I. INTRODUCTION

1. SCOPE. This publication provides overprinted DA Form 2062 (Hand Receipt) which lists the contents of Components of End Item (COEI), Basic Issue Items (BII ), and Additional Authorization List (AAL) items related to the Position and Azimuth Determining System Test Set, AN/USM-427.

2. GENERAL.

Section II is the overprinted DA Form 2062 which lists the content of COEI, BII, and AAL extracted from TM 5-6675-238-14. The listings consist of exactly the same items and are in the same sequence as those listings in TM 5-6675-238-14.

b. The overprinted DA Form 2062 will eliminate manual preparation of the form and will assist organizations in inventorying and accounting for property as required by AR 710-2.

c. Local reproduction of the overprinted DA Form 2062 is authorized. However, organizations shall comply with local policies on the reproduction of DA Form 2062 by office copying equipment, field printing plant, or duplicating plant facilities.

d. Additional copies of this publication may be requisitioned from: U.S. Army Adjutant General Publications Center, 2800 Eastern Boulevard, Baltimore, MD 21220-2896. See DA Pamphlet 310-10-2 for proper requisitioning procedure.

3. EXPLANATION OF BLOCKS AND COLUMNS (DA Form 2062). Refer to DA PAM 710-2-1. Additional information required to complete DA Form 2062 is listed below:

a. Hand receipts shall identify the accounting requirement status of all line item entries of column c. One of the following Accounting Requirement Code (ARC) will apply:

(N) for Nonexpendable: Items not consumed in use, retaining their identity during use, and requiring that accountability be maintained throughout the life of the item.

(D) for Durable: Nonconsumable components of sets, kits, outfits, and assemblages; all tools in FSC's 5110, 5120, 5130, 5133, 5136, 5140, 5180, 5210, 5220, and 5280; and any other nonconsumable with a price in excess of \$50.00 not already "N."

(X) for Expendable: Items regardless of type classification or price and which are consumed in use. Includes all class 9 repair parts, Items not consumed in use which cost \$50.00 or less and not already "N" or "D."

b. Authorization documents are as follows:

(1) Components of End Item (COEI) are authorized by the applicable Repair Parts and Special Tools List (RPSTL).

(2) Basic Issue Items (BII) are authorized by the applicable operator's manual.

(3) Additional Authorization List (AAL) items are authorized by the appropriate MTOE, TDA, CTA, or JTA authorization documents.

Section II. HAND RECEIPT

| HAND RECEIPT/ANNEX NUMBER<br><i>For use of this form, see DA PAM 710-2-1.<br/>The proponent agency is ODCSLOG.</i> |   | FROM  | TO | PUBLICATION NUMBER<br>TM 5-6675-238-14 |                | PUBLICATION DATE        |   | HAND RECEIPT NUMBER |   |   |   |   |   |
|--|---|---|----|--|----------------|-------------------------|---|---------------------|---|---|---|---|---|
| END ITEM STOCK NUMBER<br>FOR ANNEX/CR ONLY   | END ITEM DESCRIPTION  | ITEM DESCRIPTION<br><i>h</i>                                  | *  | SEC<br><i>d</i>                        | UI<br><i>e</i> | QTY<br>AUTH<br><i>f</i> | R | A                   | B | C | D | E | F |
| STOCK NUMBER<br><i>a</i>   |   |   |    |  |                |                         |   | QUANTITY            |   |   |   |   |   |
| 6675-01-081-9198   | TEST SET, POSITION AND AZIMUTH DETERMINING SYSTEM, AN/USM-427 | TEST SET, POSITION AND AZIMUTH DETERMINING SYSTEM, AN/USM-427 | N  |  |                |                         |   |                     |   |   |   |   |   |
|  | COMPONENTS OF END ITEM (COEI)                                 | COMPONENTS OF END ITEM (COEI)                                 |    |  |                |                         |   |                     |   |   |   |   |   |
|  | SIGNAL PROCESSOR UNIT TS-3617/USM-427 (06481) (877450-1)      | SIGNAL PROCESSOR UNIT TS-3617/USM-427 (06481) (877450-1)      | N  |  |                | 1                       |   |                     |   |   |   |   |   |
|  | SIGNAL PROCESSOR UNIT CASE CY-7563/USM-427 (06481) (877427-1) | SIGNAL PROCESSOR UNIT CASE CY-7563/USM-427 (06481) (877427-1) | D  |  |                | 1                       |   |                     |   |   |   |   |   |
|  | PUNCHED TAPE READER RP-239/USM-427 (06481) (877406-1)         | PUNCHED TAPE READER RP-239/USM-427 (06481) (877406-1)         | N  |  |                | 1                       |   |                     |   |   |   |   |   |
|  | PUNCHED TAPE READER CASE CY-7562/USM-427 (06481) (877407-1)   | PUNCHED TAPE READER CASE CY-7562/USM-427 (06481) (877407-1)   | D  |  |                | 1                       |   |                     |   |   |   |   |   |
|  | BUFFER UNIT CY-3404/USM-427 (06481) (877440-1)                | BUFFER UNIT CY-3404/USM-427 (06481) (877440-1)                | N  |  |                | 1                       |   |                     |   |   |   |   |   |
|  | TEST SET ACCESSORY CASE CY-7609/USM-427 (06481) (877428-1)    | TEST SET ACCESSORY CASE CY-7609/USM-427 (06481) (877428-1)    | D  |  |                | 1                       |   |                     |   |   |   |   |   |

\* WHEN USED AS A:  
HAND RECEIPT, enter Hand Receipt Annex Number  
HAND RECEIPT FOR QUARTERS FURNITURE, enter Condition Codes  
HAND RECEIPT ANNEX/COMPONENTS RECEIPT, enter Accounting Requirements Code (ARC).

| STOCK NUMBER<br>a. | ITEM DESCRIPTION<br>b.  | * | SEC<br>d. | QTY<br>AUTH<br>f. | QUANTITY |   |   |   |   |   |  |
|--------------------|---|---|-----------|-------------------|----------|---|---|---|---|---|--|
|                    |   |   |           |                   | A        | B | C | D | E | F |  |
|                    | COEI - Continued  |   |           |                   |          |   |   |   |   |   |  |
|                    | CABLE ASSEMBLY, POWER, 96-INCH, W201<br>(06481) (875753-1)            | D |           | 1                 |          |   |   |   |   |   |  |
|                    | CABLE ASSEMBLY, SPECIAL PURPOSE, 60-INCH, W203<br>(06481) (875753-2)  | D |           | 1                 |          |   |   |   |   |   |  |
|                    | CABLE ASSEMBLY, SPECIAL PURPOSE, 72-INCH, W204<br>(06481) (875753-3)  | D |           | 1                 |          |   |   |   |   |   |  |
|                    | CABLE ASSEMBLY, SPECIAL PURPOSE, 120-INCH, W205<br>(06481) (875753-4) | D |           | 1                 |          |   |   |   |   |   |  |
|                    | CABLE ASSEMBLY, SPECIAL PURPOSE, 180-INCH, W212<br>(06481) (875753-9) | D |           | 1                 |          |   |   |   |   |   |  |
|                    | CABLE ASSEMBLY, SPECIAL PURPOSE, 72-INCH, W209<br>(06481) (875753-6)  | D |           | 1                 |          |   |   |   |   |   |  |
|                    | CABLE ASSEMBLY, SPECIAL PURPOSE, 14-INCH, W210<br>(06481) (875753-7)  | D |           | 1                 |          |   |   |   |   |   |  |
|                    | CABLE ASSEMBLY, SPECIAL PURPOSE, 126-INCH, W211<br>(06481) (875753-8) | D |           | 1                 |          |   |   |   |   |   |  |
|                    | CARD EXTRACTOR (06481) (877490-1)                                     | D |           | 1                 |          |   |   |   |   |   |  |
|                    | CARD EXTRACTOR (06481) (877435-1)                                     | D |           | 1                 |          |   |   |   |   |   |  |
|                    | SELF-TEST TAPE (06481) (877417-1)                                     | D |           | 1                 |          |   |   |   |   |   |  |
|                    | TAKE-UP REEL (06481) (951332-1)                                       | D |           | 1                 |          |   |   |   |   |   |  |

| STOCK NUMBER<br>a. | ITEM DESCRIPTION<br>h.                       | * | SEC<br>j. | UT<br>k. | QTY<br>L. | AUTH<br>m. | QUANTITY |   |   |   |   |   |  |  |  |  |  |
|--------------------|--|---|-----------|----------|-----------|------------|----------|---|---|---|---|---|--|--|--|--|--|
|                    |  |   |           |          |           |            | A        | B | C | D | E | F |  |  |  |  |  |
|                    | COEI - Continued                             |   |           |          |           |            |          |   |   |   |   |   |  |  |  |  |  |
|                    | DIAGNOSTIC TAPE (06481) (877418-3)           | D |           |          | 1         |            |          |   |   |   |   |   |  |  |  |  |  |
|                    | OPERATIONAL TAPE (06481) (877419-3)          | D |           |          | 1         |            |          |   |   |   |   |   |  |  |  |  |  |
|                    | CARD EXTENDER, TAPE READER (97525) (E116-01) | D |           |          | 1         |            |          |   |   |   |   |   |  |  |  |  |  |
|                    |  |   |           |          |           |            |          |   |   |   |   |   |  |  |  |  |  |
|                    |  |   |           |          |           |            |          |   |   |   |   |   |  |  |  |  |  |
|                    |  |   |           |          |           |            |          |   |   |   |   |   |  |  |  |  |  |
|                    |  |   |           |          |           |            |          |   |   |   |   |   |  |  |  |  |  |
|                    | BASIC ISSUE ITEMS (BII)                      |   |           |          |           |            |          |   |   |   |   |   |  |  |  |  |  |
|                    | TM 5-6675-238-14                             |   |           |          | 1         |            |          |   |   |   |   |   |  |  |  |  |  |
|                    | SHORTING PLUG (06481) (875738-1)             | X |           |          | 1         |            |          |   |   |   |   |   |  |  |  |  |  |
|                    |  |   |           |          |           |            |          |   |   |   |   |   |  |  |  |  |  |
|                    |  |   |           |          |           |            |          |   |   |   |   |   |  |  |  |  |  |
|                    |  |   |           |          |           |            |          |   |   |   |   |   |  |  |  |  |  |
|                    |  |   |           |          |           |            |          |   |   |   |   |   |  |  |  |  |  |
|                    |  |   |           |          |           |            |          |   |   |   |   |   |  |  |  |  |  |



| HAND RECEIPT/ANNEX NUMBER<br>For use of this form, see DA PAM 710-2-1.<br>The proponent agency is ODCSLOG. |                                     | FROM:                | TO:                                    | HAND RECEIPT NUMBER |                |             |   |   |   |   |   |  |  |  |  |  |
|--|-------------------------------------|----------------------|--|---------------------|----------------|-------------|---|---|---|---|---|--|--|--|--|--|
| FOR ANNEX/CR ONLY  | END ITEM STOCK NUMBER               | END ITEM DESCRIPTION | PUBLICATION NUMBER<br>TM 5-6675-238-14 | PUBLICATION DATE    | QUANTITY       |             |   |   |   |   |   |  |  |  |  |  |
| STOCK NUMBER<br>a.   | ITEM DESCRIPTION<br>b.              | *<br>c.              | SEC<br>d.                              | UI<br>e.            | QTY AUTH<br>f. | g. QUANTITY |   |   |   |   |   |  |  |  |  |  |
|  |                                     |                      |  |                     |                | A           | B | C | D | E | F |  |  |  |  |  |
|  | ADDITIONAL AUTHORIZATION LIST (AAL) |                      |  |                     |                |             |   |   |   |   |   |  |  |  |  |  |
|  | FUSE (81349) (F028125V3A)           | X                    |  |                     | 1              |             |   |   |   |   |   |  |  |  |  |  |
|  | FUSE (81349) (F02A25V3/4A)          | X                    |  |                     | 1              |             |   |   |   |   |   |  |  |  |  |  |
|  | FUSE (81349) (F02A2505A)            | X                    |  |                     | 1              |             |   |   |   |   |   |  |  |  |  |  |
|  | FUSE (81349) (F02A250V1/8A)         | X                    |  |                     | 1              |             |   |   |   |   |   |  |  |  |  |  |
|  | FUSE (81349) (F02A250V1/2A)         | X                    |  |                     | 1              |             |   |   |   |   |   |  |  |  |  |  |
|  |                                     |                      |  |                     |                |             |   |   |   |   |   |  |  |  |  |  |
|  |                                     |                      |  |                     |                |             |   |   |   |   |   |  |  |  |  |  |
|  |                                     |                      |  |                     |                |             |   |   |   |   |   |  |  |  |  |  |
|  |                                     |                      |  |                     |                |             |   |   |   |   |   |  |  |  |  |  |
|  |                                     |                      |  |                     |                |             |   |   |   |   |   |  |  |  |  |  |
|  |                                     |                      |  |                     |                |             |   |   |   |   |   |  |  |  |  |  |

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 HAND RECEIPT, enter Hand Receipt Annex Number  
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 HAND RECEIPT ANNEX/COMPONENTS RECEIPT, enter Accounting Requirements Code (ARC).

**By Order of the Secretary of the Army:**

**CARL E. VUONO**  
*General, United States Army*  
*Chief of Staff*

**Official:**

**R. L. DILWORTH**  
*Brigadier General, United States Army*  
*The Adjutant General*

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To be distributed in accordance with DA Form 12-25A, Unit Maintenance requirements for Test Set, Position & Azimuth Determining System (PADS) (AN/USM-427).





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FROM (PRINT YOUR UNIT'S COMPLETE ADDRESS)  
**PFC JOHN DOE**  
**COA, 3d ENGINEER BN**  
**FT. LEONARDWOOD, MO 63108**  
 DATE SENT

PUBLICATION NUMBER  
 TM 5-6675-238-14-HR

PUBLICATION DATE  
 20 Jan 88

PUBLICATION TITLE  
 Test Set, Position and Azimuth  
 Determining System

BE EXACT PIN-POINT WHERE IT IS

| PAGE NO | PARA-GRAPH | FIGURE NO | TABLE NO |
|---------|------------|-----------|----------|
| 6       | 2-1<br>a   |           |          |
| B1      |            | 4-3       |          |
| 125     | line 20    |           |          |

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

In line 6 of paragraph 2-1a the manual states the engine has 6 Cylinders. The engine on my set only has 4 Cylinders. Change the manual to show 4 Cylinders.

Callout 16 on figure 4-3 is pointing at a bolt. In key to figure 4-3, item 16 is called a shim - Please correct one or the other.

I ordered a gasket, item 19 on figure B-16 by NSN 2910-00-762-3001. I got a gasket but it doesn't fit. Supply says I got what I ordered, so the NSN is wrong. Please give me a good NSN

PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER

**JOHN DOE, PFC (268) 317-7111**

SIGN HERE

*John DOE*  
**JOHN DOE**

DA FORM 2028-2  
 1 JUL 79

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|---|-------------------------------|--|

| BE EXACT PIN-POINT WHERE IT IS |            |           |          |
|--------------------------------|------------|-----------|----------|
| PAGE NO                        | PARA-GRAPH | FIGURE NO | TABLE NO |
|                                |            |           |          |

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Test Set, Position and Azimuth  
Determining System

BE EXACT PIN-POINT WHERE IT IS

| PAGE<br>NO | PARA-<br>GRAPH | FIGURE<br>NO | TABLE<br>NO |
|------------|----------------|--------------|-------------|
|            |                |              |             |

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|---|-------------------------------|--|

| BE EXACT PIN-POINT WHERE IT IS |            |           |          | IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT: |
|--------------------------------|------------|-----------|----------|--|
| PAGE NO                        | PARA-GRAPH | FIGURE NO | TABLE NO |  |
|                                |            |           |          |  |

TEAR ALONG PERFORATED LINE

|  |           |
|--|-----------|
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|--|-----------|

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TEAR ALONG PERFORATED LINE





# The Metric System and Equivalents

## Linear Measure

1 centimeter = 10 millimeters = .39 inch  
 1 decimeter = 10 centimeters = 3.94 inches  
 1 meter = 10 decimeters = 39.37 inches  
 1 dekameter = 10 meters = 32.8 feet  
 1 hectometer = 10 dekameters = 328.08 feet  
 1 kilometer = 10 hectometers = 3,280.8 feet

## Weights

1 centigram = 10 milligrams = .15 grain  
 1 decigram = 10 centigrams = 1.54 grains  
 1 gram = 10 decigrams = .035 ounce  
 1 dekagram = 10 grams = .35 ounce  
 1 hectogram = 10 dekagrams = 3.52 ounces  
 1 kilogram = 10 hectograms = 2.2 pounds  
 1 quintal = 100 kilograms = 220.46 pounds  
 1 metric ton = 10 quintals = 1.1 short tons

## Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce  
 1 deciliter = 10 centiliters = 3.38 fl. ounces  
 1 liter = 10 deciliters = 33.81 fl. ounces  
 1 dekaliter = 10 liters = 2.64 gallons  
 1 hectoliter = 10 dekaliters = 26.42 gallons  
 1 kiloliter = 10 hectoliters = 264.18 gallons

## Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch  
 1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches  
 1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet  
 1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet  
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres  
 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

## Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch  
 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches  
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

## Approximate Conversion Factors

| To change     | To                 | Multiply by | To change          | To            | Multiply by |
|---------------|--------------------|-------------|--------------------|---------------|-------------|
| inches        | centimeters        | 2.540       | ounce-inches       | newton-meters | .007062     |
| feet          | meters             | .305        | centimeters        | inches        | .394        |
| yards         | meters             | .914        | meters             | feet          | 3.280       |
| miles         | kilometers         | 1.609       | meters             | yards         | 1.094       |
| square inches | square centimeters | 6.451       | kilometers         | miles         | .621        |
| square feet   | square meters      | .093        | square centimeters | square inches | .155        |
| square yards  | square meters      | .836        | square meters      | square feet   | 10.764      |
| square miles  | square kilometers  | 2.590       | square meters      | square yards  | 1.196       |
| acres         | square hectometers | .405        | square kilometers  | square miles  | .386        |
| cubic feet    | cubic meters       | .028        | square hectometers | acres         | 2.471       |
| cubic yards   | cubic meters       | .765        | cubic meters       | cubic feet    | 35.315      |
| fluid ounces  | milliliters        | 29.573      | cubic meters       | cubic yards   | 1.308       |
| pints         | liters             | .473        | milliliters        | fluid ounces  | .034        |
| quarts        | liters             | .946        | liters             | pints         | 2.113       |
| gallons       | liters             | 3.785       | liters             | quarts        | 1.057       |
| ounces        | grams              | 28.349      | liters             | gallons       | .264        |
| pounds        | kilograms          | .454        | grams              | ounces        | .035        |
| short tons    | metric tons        | .907        | kilograms          | pounds        | 2.205       |
| pound-feet    | newton-meters      | 1.356       | metric tons        | short tons    | 1.102       |
| pound-inches  | newton-meters      | .11296      |                    |               |             |

## Temperature (Exact)

|    |             |                 |             |    |
|----|-------------|-----------------|-------------|----|
| °F | Fahrenheit  | 5/9 (after      | Celsius     | °C |
|    | temperature | subtracting 32) | temperature |    |

